

Flour Milling: 2002

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2002 Economic Census

Manufacturing

Industry Series



U.S. CENSUS BUREAU

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

| Industry and year ¹ | Com- panies ² | All estab- lish- ments ³ | All employees | | Production workers | | | Value added (\$1,000) | Total cost of materials (\$1,000) | Total value of shipments (\$1,000) | Total capital expendi- tures (\$1,000) |
|--------------------------------|-----------------------------|--|---------------------|----------------------|---------------------|------------------|--------------------|-----------------------------|--|---|---|
| | | | Number ⁴ | Payroll (\$1,000) | Number ⁴ | Hours (1,000) | Wages (\$1,000) | | | | |
| 311211, Flour milling..... | 2002.. | 213 | 340 | 11 636 | 448 597 | 8 418 | 18 375 | 285 845 | 2 003 868 | 4 922 509 | 6 905 731 |
| | 2001.. | N | N | 11 617 | 418 522 | 8 610 | 19 193 | 268 803 | 1 684 364 | 4 568 524 | 6 255 569 |
| | 2000.. | N | N | 12 599 | 441 371 | 9 581 | 20 020 | 293 275 | 2 116 021 | 4 498 712 | 6 612 109 |
| | 1999.. | N | N | 12 058 | 410 917 | 8 881 | 19 108 | 271 170 | 1 666 108 | 4 592 758 | 6 270 602 |
| | 1998.. | N | N | 10 892 | 392 853 | 8 043 | 17 993 | 266 705 | 1 863 965 | 5 471 831 | 7 359 803 |
| | 1997.. | 254 | 382 | 12 762 | 444 182 | 9 287 | 20 386 | 296 258 | 1 894 615 | 6 099 513 | 8 001 978 |
| | | | | | | | | | | | 140 285 |
| | | | | | | | | | | | 119 134 |
| | | | | | | | | | | | 196 898 |
| | | | | | | | | | | | 185 013 |
| | | | | | | | | | | | 196 633 |

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

| Industry and geographic area | All establishments ² | | All employees | | Production workers | | | Value added (\$1,000) | Total cost of materials (\$1,000) | Total value of shipments (\$1,000) | Total capital expenditures (\$1,000) |
|------------------------------|---------------------------------|-------|---------------------------|---------------------|--------------------|---------------------|---------------|-----------------------|-----------------------------------|------------------------------------|--------------------------------------|
| | E ¹ | Total | With 20 employees or more | Number ³ | Payroll (\$1,000) | Number ³ | Hours (1,000) | Wages (\$1,000) | | | |
| 311211, Flour milling | | | | | | | | | | | |
| United States..... | - | 340 | 168 | 11 636 | 448 597 | 8 418 | 18 375 | 285 845 | 2 003 868 | 4 922 509 | 6 905 731 |
| Colorado | - | 7 | 1 | 115 | 5 787 | 87 | 202 | 4 037 | 54 026 | 64 839 | 118 090 |
| Kentucky | - | 5 | 3 | 149 | 4 390 | 91 | 193 | 2 562 | 16 308 | 40 830 | 55 722 |
| Michigan..... | - | 13 | 7 | 663 | 28 730 | 490 | 992 | 17 908 | 97 202 | 137 010 | 232 616 |
| Minnesota | - | 16 | 12 | 599 | 24 630 | 496 | 1 056 | 19 080 | 108 348 | 346 374 | 453 685 |
| North Carolina..... | 1 | 19 | 6 | 459 | 16 144 | 319 | 685 | 9 979 | 50 577 | 153 259 | 204 008 |
| Oklahoma | - | 6 | 5 | 505 | 17 672 | 409 | 920 | 11 755 | 50 756 | 130 288 | 179 058 |
| Oregon | - | 5 | 2 | 107 | 4 937 | 78 | 186 | 3 305 | 10 204 | 44 366 | 53 871 |
| Utah | - | 8 | 5 | 254 | 8 927 | 170 | 369 | 5 777 | 34 530 | 93 375 | 128 053 |
| Wisconsin | - | 9 | 3 | 234 | 7 947 | 192 | 404 | 5 679 | 34 320 | 137 285 | 170 650 |
| | | | | | | | | | | | |

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

| Item | Value |
|--|-----------------------|
| 311211, Flour milling | |
| Companies ¹ | number.. 213 |
| All establishments ² | number.. 340 |
| Establishments with 1 to 19 employees | number.. 172 |
| Establishments with 20 to 99 employees | number.. 142 |
| Establishments with 100 employees or more | number.. 26 |
| All employees ³ | number.. 11 636 |
| Total compensation | \$1,000.. 544 698 |
| Annual payroll | \$1,000.. 448 597 |
| Total fringe benefits | \$1,000.. 96 101 |
| Production workers, average for year | number.. 8 418 |
| Production workers on March 12 | number.. 8 347 |
| Production workers on May 12 | number.. 8 227 |
| Production workers on August 12 | number.. 8 558 |
| Production workers on November 12 | number.. 8 469 |
| Production worker hours | 1,000.. 18 375 |
| Production worker wages | \$1,000.. 285 845 |
| Total cost of materials | \$1,000.. 4 922 509 |
| Materials, parts, containers, packaging, etc., used | \$1,000.. 4 561 904 |
| Resales | \$1,000.. 204 728 |
| Purchased fuels | \$1,000.. 31 578 |
| Purchased electricity | \$1,000.. 119 919 |
| Contract work | \$1,000.. 4 380 |
| Quantity of electricity purchased for heat and power | 1,000 kWh.. 2 177 602 |
| Quantity of electricity generated less sold for heat and power | 1,000 kWh.. D |
| Total value of shipments | \$1,000.. 6 905 731 |
| Primary products value of shipments | \$1,000.. 6 432 495 |
| Secondary products value of shipments | \$1,000.. 143 928 |
| Total miscellaneous receipts | \$1,000.. 329 308 |
| Value of resales | \$1,000.. 324 515 |
| Contract receipts | \$1,000.. D |
| Other miscellaneous receipts | \$1,000.. D |
| Primary products specialization ratio | percent.. 98 |
| Value of primary products shipments made in all industries | \$1,000.. 6 683 757 |
| Value of primary products shipments made in this industry | \$1,000.. 6 432 495 |
| Value of primary products shipments made in other industries | \$1,000.. 251 262 |
| Coverage ratio | percent.. 96 |
| Value added | \$1,000.. 2 003 868 |
| Total inventories, beginning of year | \$1,000.. 492 754 |
| Finished goods inventories | \$1,000.. 87 894 |
| Work-in-process inventories | \$1,000.. 11 134 |
| Materials and supplies inventories | \$1,000.. 393 726 |
| Total inventories, end of year | \$1,000.. 581 971 |
| Finished goods inventories | \$1,000.. 104 229 |
| Work-in-process inventories | \$1,000.. 15 445 |
| Materials and supplies inventories | \$1,000.. 462 297 |
| Gross value of depreciable assets (acquisition costs) at beginning of year | \$1,000.. '2 683 440 |
| Total capital expenditures (new and used) | \$1,000.. '140 285 |
| Buildings and other structures (new and used) | \$1,000.. '27 070 |
| Machinery and equipment (new and used) | \$1,000.. '113 215 |
| Automobiles, trucks, etc., for highway use | \$1,000.. '3 254 |
| Computers and peripheral data processing equipment | \$1,000.. '4 958 |
| All other expenditures for machinery and equipment | \$1,000.. '105 003 |
| Total retirements | \$1,000.. '79 305 |
| Gross value of depreciable assets at end of year | \$1,000.. '2 744 420 |
| Depreciation charges during year | \$1,000.. '137 603 |
| Total rental payments | \$1,000.. 48 988 |
| Buildings and other structures | \$1,000.. 17 220 |
| Machinery and equipment | \$1,000.. 31 768 |
| Total other expenses ⁴ | \$1,000.. 189 638 |
| Response coverage ratio ⁵ | percent.. 91 |
| Repair and maintenance services of buildings and/or machinery ⁴ | \$1,000.. 65 649 |
| Communications services ⁴ | \$1,000.. 3 683 |
| Legal services ⁴ | \$1,000.. 1 114 |
| Accounting, auditing, and bookkeeping services ⁴ | \$1,000.. 791 |
| Advertising and promotional services ⁴ | \$1,000.. 1 256 |
| Expensed computer hardware and supplies and purchased computer services ⁴ | \$1,000.. 1 086 |
| Refuse removal (including hazardous waste) services ⁴ | \$1,000.. 3 117 |
| Management consulting and administrative services ⁴ | \$1,000.. 1 778 |
| Taxes and license fees ⁴ | \$1,000.. 12 462 |
| All other expenses ⁴ | \$1,000.. 98 704 |

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on 2002 Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

| Employment size class | E ¹ | All estab- lish- ments ² | All employees | | Production workers | | | Value added (\$1,000) | Total cost of materials (\$1,000) | Total value of shipments (\$1,000) | Total capital expendi- tures (\$1,000) |
|---|----------------|---|---------------------|----------------------|---------------------|------------------|--------------------|-----------------------------|--|---|--|
| | | | Number ³ | Payroll (\$1,000) | Number ³ | Hours (1,000) | Wages (\$1,000) | | | | |
| 311211, Flour milling | | | | | | | | | | | |
| All establishments | - | 340 | 11 636 | 448 597 | 8 418 | 18 375 | 285 845 | 2 003 868 | 4 922 509 | 6 905 731 | 140 285 |
| Establishments with— | | | | | | | | | | | |
| 1 to 4 employees | 9 | 91 | 180 | 6 561 | 135 | 280 | 4 461 | 18 135 | 72 279 | 90 370 | 1 782 |
| 5 to 9 employees | 7 | 31 | 208 | 7 589 | 157 | 338 | 5 061 | 19 848 | 69 005 | 88 674 | 1 837 |
| 10 to 19 employees | 1 | 50 | 737 | 29 647 | 558 | 1 239 | 20 507 | 98 767 | 345 669 | 442 926 | 8 412 |
| 20 to 49 employees | - | 98 | 3 095 | 124 869 | 2 291 | 5 113 | 82 690 | 561 697 | 1 942 949 | 2 497 074 | 53 377 |
| 50 to 99 employees | - | 45 | 3 135 | 121 725 | 2 224 | 4 844 | 76 287 | 566 606 | 1 547 611 | 2 106 045 | 45 762 |
| 100 to 249 employees | - | 24 | h | D | D | D | D | D | D | D | D |
| 250 to 499 employees | - | 2 | f | D | D | D | D | D | D | D | D |
| 500 to 999 employees | - | - | - | - | - | - | - | - | - | - | - |
| 1,000 to 2,499 employees | - | - | - | - | - | - | - | - | - | - | - |
| 2,500 employees or more | - | - | - | - | - | - | - | - | - | - | - |
| Administrative records ⁴ | 9 | 97 | 266 | 10 250 | 207 | 451 | 7 147 | 29 628 | 122 529 | 152 158 | 12 815 |

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

| Industry or product class code | Industry or primary product class | All establishments ¹ | All employees | | Production workers | | | Value added (\$1,000) | Total cost of materials (\$1,000) | Total value of shipments (\$1,000) | Total capital expenditures (\$1,000) |
|--------------------------------|---|---------------------------------|---------------------|-------------------|---------------------|---------------|-----------------|-----------------------|-----------------------------------|------------------------------------|--------------------------------------|
| | | | Number ² | Payroll (\$1,000) | Number ² | Hours (1,000) | Wages (\$1,000) | | | | |
| 311211 | Flour milling | 340 | 11 636 | 448 597 | 8 418 | 18 375 | 285 845 | 2 003 868 | 4 922 509 | 6 905 731 | '140 285 |
| 3112111 | Wheat flour (except flour mixes), made in flour mills | 153 | 6 720 | 274 057 | 4 989 | 11 127 | 183 387 | 1 226 361 | 3 784 154 | 4 991 319 | '95 044 |
| 3112114 | Wheat mill products, except flour | 4 | 288 | 9 635 | 232 | 545 | 6 232 | 35 370 | 36 400 | 71 632 | D |
| 3112117 | Corn mill products | 31 | 2 095 | 77 819 | 1 304 | 2 816 | 41 566 | 453 115 | 603 699 | 1 056 407 | '23 445 |
| 311211A | Prepared flour mixes, including refrigerated and frozen doughs and batters, made in flour mills | 19 | 1 469 | 50 941 | 1 056 | 2 116 | 29 824 | 167 413 | 204 168 | 371 321 | D |
| 311211B | Other grain mill products | 13 | 461 | 17 192 | 350 | 739 | 11 304 | 74 663 | 122 338 | 197 069 | '4 866 |

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

| Product code | Product | Number of companies with shipments of \$100,000 or more | Quantity of production for all purposes | Product shipments | |
|--------------|--|---|---|-------------------|-----------------|
| | | | | Quantity | Value (\$1,000) |
| 311211 | Flour milling..... | 2002.. | N | X | 6 683 757 |
| | | 1997.. | N | X | 7 837 086 |
| 3112111 | Wheat flour (except flour mixes), made in flour mills | 2002.. | N | X | 4 339 890 |
| | | 1997.. | N | X | 5 146 612 |
| 31121111 | Commercial dollar exports, all white flour types, made in flour mills..... | 2002.. | N | X | 49 851 |
| | | 1997.. | N | X | 116 831 |
| 311211111 | Commercial dollar exports, all white flour types, made in flour mills | 1,000 sacks (cwt) 2002.. | 7 | X | 4 368.8 |
| | | 1997.. | 7 | X | 9 266.4 |
| 31121112 | All other exports of white flour (including Public Law 480), made in flour mills | 2002.. | N | X | 35 254 |
| | | 1997.. | N | X | D |
| 311211122 | All other exports of white flour (including Public Law 480), made in flour mills | 1,000 sacks (cwt) 2002.. | 4 | X | 35 254 |
| | | 1997.. | 1 | X | D |
| 31121113 | Bakers' and institutional white bread-type flours, domestic shipments in bulk cars or trucks, made in flour mills | 2002.. | N | X | 1 652 734 |
| | | 1997.. | N | X | 2 162 335 |
| 311211133 | Bakers' and institutional white bread-type flours, domestic shipments in bulk cars or trucks, made in flour mills | 1,000 sacks (cwt) 2002.. | 18 | X | 1 652 734 |
| | | 1997.. | 20 | X | 2 162 335 |
| 31121114 | Bakers' and institutional white bread-type flours, domestic shipments in containers (including tote bins), made in flour mills..... | 2002.. | N | X | 454 275 |
| | | 1997.. | N | X | D |
| 3112111441 | Bakers' and institutional white bread-type flours, domestic shipments in containers (including tote bins), made in flour mills | 1,000 sacks (cwt) 2002.. | 12 | X | 454 275 |
| | | 1997.. | 12 | X | D |
| 31121115 | Bakers' and institutional soft wheat flour, domestic shipments, made in flour mills | 2002.. | N | X | 515 191 |
| | | 1997.. | N | X | 569 559 |
| 3112111551 | Bakers' and institutional soft wheat flour, domestic shipments in bulk cars or trucks, made in flour mills | 1,000 sacks (cwt) 2002.. | 17 | X | 471 268 |
| | | 1997.. | 22 | X | 505 675 |
| 3112111561 | Bakers' and institutional soft wheat flour, domestic shipments in containers (including tote bins), made in flour mills..... | 1,000 sacks (cwt) 2002.. | 14 | X | 43 923 |
| | | 1997.. | 16 | X | 63 884 |
| 31121116 | Family white flour (except self-rising), domestic shipments, made in flour mills | 2002.. | N | X | 558 638 |
| | | 1997.. | N | X | 914 641 |
| 3112111671 | Family white flour (except self-rising), domestic shipments in containers less than 25 lb, made in flour mills | 1,000 sacks (cwt) 2002.. | 15 | X | 472 238 |
| | | 1997.. | 20 | X | 812 492 |
| 3112111681 | Family white flour (except self-rising), domestic shipments in containers 25 lb or more, made in flour mills | 1,000 sacks (cwt) 2002.. | 18 | X | 86 400 |
| | | 1997.. | 15 | X | 6 796.2 |
| 31121117 | Self-rising family white flour, domestic shipments, made in flour mills | 2002.. | N | X | 504 897 |
| | | 1997.. | N | X | 327 902 |
| 3112111791 | Self-rising family white flour, domestic shipments, made in flour mills | 1,000 sacks (cwt) 2002.. | 14 | X | 106 689 |
| | | 1997.. | 17 | X | 178 279 |
| 31121117A1 | White flour shipped to blenders or other processors for use in food products (mixes, refrigerated doughs, soups, etc.), domestic shipments, made in flour mills..... | 1,000 sacks (cwt) 2002.. | 11 | X | 35 728.8 |
| | | 1997.. | 13 | X | 8 781.1 |
| 31121117B1 | White flour shipped to blenders or other processors for use in nonfood products (pet food, industrial, etc.), domestic shipments, made in flour mills | 1,000 sacks (cwt) 2002.. | 3 | X | 22 569 |
| | | 1997.. | 10 | X | 40 008 |
| 31121118 | Whole wheat, durum, semolina, bulger, farina, and other wheat flour (except flour mixes), made in flour mills | 2002.. | N | X | 563 527 |
| | | 1997.. | N | X | 574 161 |
| 31121118C1 | Whole wheat flour, made in flour mills ¹ | 1,000 sacks (cwt) 2002.. | 22 | X | 290 688 |
| | | 1997.. | 22 | X | D |
| 31121118D1 | Durum flour and semolina, made in flour mills | 1,000 sacks (cwt) 2002.. | 6 | X | 15 606.4 |
| | | 1997.. | 8 | X | 189 957 |
| 31121118E1 | Bulgur flour, made in flour mills | 1,000 sacks (cwt) 2002.. | 4 | X | 342 197.1 |
| | | 1997.. | 9 | X | 342 893 |
| 31121118F1 | Other wheat flour (including farina), made in flour mills..... | 1,000 sacks (cwt) 2002.. | 9 | X | 29 922 |
| | | 1997.. | 9 | X | 3 635.5 |
| 3112111Y | Wheat flour (except flour mixes), made in flour mills, nsk | 2002.. | N | X | 77 306 |
| | | 1997.. | NN | X | D |
| 3112111YWV | Wheat flour (except flour mixes), made in flour mills, nsk | 2002.. | NN | X | 52 960 |
| | | 1997.. | N | X | D |
| 31121114 | Wheat mill products, except flour | 2002.. | N | X | 5 523 |
| | | 1997.. | N | X | 3 960 |
| 31121141 | Wheat mill products (feed, wheat germ, wheat bran, etc.), except flour | 2002.. | N | X | 5 523 |
| | | 1997.. | N | X | 3 960 |
| 3112114111 | Wheat mill feed ¹ | 1,000 s tons 2002.. | 35 | X | 52 960 |
| | | 1997.. | 41 | X | D |
| 3112114121 | Other wheat mill products (wheat germ, wheat bran, etc.), except flour and mill feed | 1,000 s tons 2002.. | 21 | X | 103 309 |
| | | 1997.. | 30 | X | 110 831 |
| 3112114Y | Wheat mill products, except flour, nsk | 2002.. | N | X | 3 033 |
| | | 1997.. | N | X | 12 230 |
| 3112114YWV | Wheat mill products, except flour, nsk | 2002.. | NN | X | 3 033 |
| | | 1997.. | N | X | 12 230 |
| 3112117 | Corn mill products | 2002.. | N | X | 932 724 |
| | | 1997.. | NN | X | 903 232 |
| 31121171 | Corn mill products | 2002.. | NN | X | 926 888 |
| | | 1997.. | N | X | 898 412 |
| 3112117111 | Whole cornmeal, for human consumption, made in corn mills..... | 1,000 sacks (cwt) 2002.. | 18 | X | 64 111 |
| | | 1997.. | 14 | X | 51 171 |

See footnotes at end of table.

6 Flour Milling

Manufacturing—Industry Series

U.S. Census Bureau, 2002 Economic Census

Table 6a. Products Statistics: 2002 and 1997—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

| Product code | Product | Number of companies with shipments of \$100,000 or more | Quantity of production for all purposes | Product shipments | |
|--------------|---|---|---|-------------------|--------------------------------------|
| | | | | Quantity | Value (\$1,000) |
| 311211 | Flour milling—Con. | | | | |
| 3112117 | Corn mill products—Con. | | | | |
| 31121171 | Corn mill products—Con. | | | | |
| 3112117121 | Degermed cornmeal, for human consumption, made in corn mills..... | 1,000 sacks (cwt) | 2002.. 10 1997.. 9 | X X | 6 178.8 6 725.9 68 282 55 588 |
| 3112117131 | Corn grits and hominy (except for brewers' use), for human consumption, made in corn mills | 1,000 sacks (cwt) | 2002.. 11 1997.. 12 | X X | 15 568.6 13 504.6 158 833 188 561 |
| 3112117141 | Corn grits and flakes for brewers' use, for human consumption, made in corn mills | 1,000 sacks (cwt) | 2002.. 6 1997.. 6 | X X | q1 503.4 4 129.2 18 265 40 524 |
| 3112117151 | Hominy feed, cornmeal, and other byproducts of dry corn milling, for animal feed..... | 1,000 s tons | 2002.. 23 1997.. 25 | X X | S S 139 022 141 645 |
| 3112117161 | Corn flour, made in corn mills | 1,000 sacks (cwt) | 2002.. 9 1997.. 10 | X X | 16 210.7 299 632 241 121 |
| 3112117171 | Other corn mill products, for human consumption | 1,000 sacks (cwt) | 2002.. 14 1997.. 15 | X X | D D D D |
| 3112117181 | Other corn mill products, not for human consumption | 1,000 sacks (cwt) | 2002.. 3 1997.. 1 | X X | D D D D |
| 3112117Y | Corn mill products, nsk | | 2002.. N 1997.. N | X X | 5 836 4 820 5 836 4 820 |
| 3112117YWV | Corn mill products, nsk | | 2002.. N 1997.. N | X X | 5 836 4 820 5 836 4 820 |
| 311211A | Prepared flour mixes, including refrigerated and frozen doughs and batters, made in flour mills | | 2002.. N 1997.. N | X X | X X 471 222 517 430 |
| 311211A1 | Prepared flour mixes, including refrigerated and frozen doughs and batters, made in flour mills | | 2002.. N 1997.. N | X X | X X 457 574 513 013 |
| 311211A111 | Pancake and waffle mixes, made in flour mills ² | 1,000 sacks (cwt) | 2002.. 12 1997.. 12 | X X | S S 97 733 81 512 |
| 311211A121 | Cake mixes, including gingerbread, made in flour mills ³ | 1,000 sacks (cwt) | 2002.. 8 1997.. 3 | X X | P1 512.0 D S 16 151 91 513 D |
| 311211A131 | Biscuit mixes, made in flour mills ⁴ | 1,000 sacks (cwt) | 2002.. 13 1997.. 6 | X X | S D S D |
| 311211A141 | Bread and bread-type roll mixes, made in flour mills ⁵ | 1,000 sacks (cwt) | 2002.. 12 1997.. 8 | X X | S D S D |
| 311211A151 | Other prepared flour mixes (including cookie, piecrust, doughnut, and other sweet yeast goods mixes), made in flour mills ⁶ | 1,000 sacks (cwt) | 2002.. 22 1997.. 17 | X X | S P7 472.8 155 971 166 815 |
| 311211A161 | Refrigerated doughs and batters (cookie, biscuit, bread and bread-type roll, pasta, pizza, coffeecake, pancake, etc.), made in flour mills ⁷ | mil lb. | 2002.. 4 1997.. 8 | X X | P36.9 S 13 619 17 422 |
| 311211A171 | Frozen doughs and batters (cookie, biscuit, bread and bread-type roll, pasta, pizza, coffeecake, pancake, etc.), made in flour mills ⁸ | mil lb. | 2002.. 7 1997.. 6 | X X | 94.5 148.0 57 960 71 477 |
| 311211AY | Prepared flour mixes, including refrigerated and frozen doughs and batters, made in flour mills, nsk | | 2002.. N 1997.. N | X X | X X 13 648 4 417 |
| 311211AYWV | Prepared flour mixes, including refrigerated and frozen doughs and batters, made in flour mills, nsk | | 2002.. N 1997.. N | X X | X X 13 648 4 417 |
| 311211B | Other grain mill products | | 2002.. N 1997.. N | X X | X X 221 433 N |
| 311211B1 | Other grain mill products | | 2002.. N 1997.. N | X X | X X 221 433 N |
| 311211B111 | Rye, oat, buckwheat, and other flour, made in grain mills ¹ | 1,000 sacks (cwt) | 2002.. 18 1997.. N | X X | S N 138 305 N |
| 311211B121 | Other mill feed (oats, rye, buckwheat, etc.), made in grain mills ¹ | 1,000 sacks (cwt) | 2002.. 10 1997.. N | X X | S N 83 128 N |
| 311211B131 | Fruit flour, made in grain mills | 1,000 s tons | 2002.. — 1997.. N | X X | — N — N |
| 311211BY | Other grain mill products, nsk | | 2002.. N 1997.. N | X X | X X — N |
| 311211BYWV | Other grain mill products, nsk | | 2002.. N 1997.. N | X X | X X — N |
| 311211W | Flour milling, nsk, total | | 2002.. N 1997.. N | X X | X X 185 511 288 702 |
| 311211WY | Flour milling, nsk, total | | 2002.. N 1997.. N | X X | X X 185 511 288 702 |
| 311211WYWW | Flour milling, nsk, for nonadministrative-record establishments | | 2002.. N 1997.. N | X X | X X 34 826 18 168 |
| 311211WYWy | Flour milling, nsk, for administrative-record establishments | | 2002.. N 1997.. N | X X | X X 150 685 270 534 |

¹For additional detail, see Current Industrial Report MQ311A, Flour Milling.

²This product code is primary to more than one industry. See industry 311822, product code 3118220211.

³This product code is primary to more than one industry. See industry 311822, product code 3118220121.

⁴This product code is primary to more than one industry. See industry 311822, product code 3118220231.

⁵This product code is primary to more than one industry. See industry 311822, product code 3118220251.

⁶This product code is primary to more than one industry. See industry 311822, product code 3118220241.

⁷This product code is primary to more than one industry. See industry 311822, product code 3118220261.

⁸This product code is primary to more than one industry. See industry 311822, product code 3118220271.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p=10 to 19 percent estimated; q=20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

| NAICS product class code | Product class and geographic area | Value of product shipments (\$1,000) |
|--------------------------|---|--------------------------------------|
| 3112111 | Wheat flour (except flour mixes), made in flour mills | |
| | United States..... | 2002.. 4 339 890 1997.. 5 146 612 |
| | Michigan..... | 2002.. 74 096 1997.. 79 937 |
| | Minnesota | 2002.. 317 855 1997.. 417 386 |
| | North Carolina..... | 2002.. 131 334 1997.. 153 096 |
| | Oklahoma | 2002.. 102 038 1997.. 108 773 |
| | Utah | 2002.. 100 072 1997.. 120 841 |
| | Washington | 2002.. 56 315 1997.. N |
| 3112114 | Wheat mill products, except flour | |
| | United States..... | 2002.. 532 977 1997.. 784 114 |
| | Michigan..... | 2002.. 24 956 1997.. 102 788 |
| | Minnesota | 2002.. 30 101 1997.. 56 181 |
| | North Carolina..... | 2002.. 12 045 1997.. 12 405 |
| | Oklahoma | 2002.. 48 155 1997.. N |
| | Utah | 2002.. 14 279 1997.. 21 511 |
| 3112117 | Corn mill products | |
| | United States..... | 2002.. 932 724 1997.. 903 232 |
| | North Carolina..... | 2002.. 25 222 1997.. 17 163 |
| 311211A | Prepared flour mixes, including refrigerated and frozen doughs and batters, made in flour mills | |
| | United States..... | 2002.. 471 222 1997.. 517 430 |
| | North Carolina..... | 2002.. 9 136 1997.. N |
| 311211B | Other grain mill products | |
| | United States..... | 2002.. 221 433 1997.. N |
| | Minnesota | 2002.. 62 115 1997.. N |

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

| Material code | Material consumed | Quantity | Delivered cost (\$1,000) |
|---------------|---|--|--------------------------|
| 311211 | Flour milling | | |
| 00900001 | Total materials | 2002.. X 1997.. X | 4 561 904 5 761 270 |
| 11114003 | Wheat | mil bushels 2002.. P820.5 1997.. 785.0 | 3 196 517 3 990 970 |
| 11115003 | Corn | mil bushels 2002.. P123.4 1997.. 9125.5 | 328 647 453 351 |
| 11119911 | Barley..... | mil bushels 2002.. q1.5 1997.. p1.9 | 5 112 6 538 |
| 11119913 | Oats | mil bushels 2002.. 251.4 1997.. D | 57 046 D |
| 11110005 | Other grains (excluding wheat, corn, oats, barley, rice (rough), and sorghum) | mil bushels 2002.. P12.6 1997.. 6.9 | 45 377 D |
| 31121101 | Wheat flour | 1,000 cwt. 2002.. 7 658.8 1997.. 16 424.0 | 80 344 127 929 |
| 31100015 | Fats and oils | mil lb. 2002.. S 1997.. N | 22 268 N |
| 31131001 | Sugar, cane and beet (sugar solids) | 1,000 s tons 2002.. 26.1 1997.. N | 13 141 N |
| 32222401 | Bags (uncoated paper and multiwall) | 2002.. X 1997.. X | 63 645 50 478 |
| 31491101 | Textile bags (burlap, cotton, polypropylene, etc.) | 2002.. X 1997.. X | 11 957 6 106 |
| 001900A3 | Bags (plastics, foil, and coated paper) | 2002.. X 1997.. X | 20 124 N |
| 001900A1 | Packaging paper and plastics film, coated and laminated | 2002.. X 1997.. X | 18 768 N |
| 32221001 | Paperboard containers, boxes, and corrugated paperboard | 2002.. X 1997.. X | 24 388 N |
| 00970099 | All other materials and components, parts, containers, and supplies | 2002.. X 1997.. X | 339 788 480 517 |
| 00971000 | Materials, ingredients, containers, and supplies, nsk | 2002.. X 1997.. X | 334 782 524 213 |

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p=10 to 19 percent estimated; q=20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.